

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Claim 1 (Currently Amended): An apparatus for restoring an aortic valve having an aortic annulus ~~with a diameter, and a sinotubular junction with a diameter, and an aortic lumen including a wall and an inside and an outside~~, the apparatus comprising:

a) an aortic annulus stabilizing apparatus comprising an inner discontinuous band stabilizer having two free ends and an outer discontinuous band stabilizer having two free ends ~~a discontinuous aortic annulus stabilizing device sized and configured to be implanted proximate the aortic annulus of the aortic valve for uniformly stabilizing the diameter of the aortic annulus and adapted to be attached to the inside and outside of the aortic lumen, wherein the discontinuous aortic annulus stabilizing device and the continuous sinotubular junction stabilizing device are made of a synthetic fiber, and wherein a sewing passage of the inner discontinuous aortic annulus stabilizing device and the inner continuous sinotubular junction stabilizing device are formed thinner than a surrounding area in order to adhere the inner discontinuous aortic annulus stabilizing device and the inner continuous sinotubular junction stabilizing device tightly to the wall of the aortic lumen associated with the aortic valve; and~~

b) a sinotubular junction stabilizing apparatus comprising an inner continuous ring stabilizer and an outer continuous ring stabilizer, wherein the outer continuous ring stabilizer is sized and configured to continuously encircle an outer surface of the sinotubular junction, and wherein the inner continuous ring stabilizer is sized and configured for placement along a diameter of an inner surface of the sinotubular junction;~~a continuous sinotubular junction stabilizing device sized and configured to be implanted proximate the sinotubular junction of the aortic valve for uniformly stabilizing the diameter of the sinotubular junction from an inside and an outside of the sinotubular junction.~~

Claims 2-4 (Cancelled)

Claim 5 (Currently Amended): The apparatus ~~offer restoring an aortic valve as set forth in claim 1, wherein at least one of the outer continuous ring stabilizer and the inner continuous ring stabilizer comprises~~sinotubular junction stabilizing device has three equally spaced markers on its circumference, which enables determination of an orientation of the continuous sinotubular junction stabilizing device.

Claim 6 (Currently Amended): The apparatus ~~offer restoring an aortic valve as set forth in claim 1, wherein at least one of the outer discontinuous band stabilizer and the inner discontinuous band stabilizer comprises~~aortic annulus stabilizing device has vertical marks about 2 mm from each free end thereof on both ends thereof, wherein the discontinuous aortic annulus stabilizing device is adapted to fix only a fibrous part of the aortic annulus, and wherein the discontinuous aortic annulus stabilizing device have an extra margin of about 2 mm outside of a vertical line which enables stabilization of the aortic annulus to be more easily accomplished.

Claims 7-12 (Cancelled)

Claim 13 (Currently Amended): A treatment method for aortic valvular regurgitation associated with an aortic valve having an aortic annulus, an aortic lumen and a sinotubular junction, comprising:

implanting ~~[[a]] an inner discontinuous band stabilizer inside the aortic lumen~~aortic annulus stabilizing device proximate the aortic annulus of the aortic valve;

implanting an outer discontinuous band stabilizer outside the aortic lumen proximate the aortic annulus of the aortic valve;

implanting an inner continuous ring stabilizer proximate an interior surface of the sinotubular junction of the aortic valve; and

implanting ~~[[a]] an outer continuous ring stabilizers~~sinotubular junction stabilizing device proximate an exterior surface of the sinotubular junction of the aortic valve;

~~wherein the discontinuous aortic annulus stabilizing device and the continuous sinotubular junction stabilizing device are made of a synthetic fiber.~~

Claim 14 (Cancelled)

Claim 15 (Currently Amended): The treatment method for aortic valvular regurgitation as set forth in claim 13, wherein ~~at least one of the outer continuous ring stabilizer and the inner continuous ring stabilizer comprises a sinotubular junction stabilizing device~~ has three equally spaced markers on its circumference, which enables determination of an orientation of the continuous sinotubular junction stabilizing device.

Claim 16 (Currently Amended): The treatment method for aortic valvular regurgitation as set forth in claim 13, wherein ~~at least one of the outer discontinuous band stabilizer and the inner discontinuous band stabilizer comprises aortic annulus stabilizing device~~ has vertical marks about 2mm from each free end thereof both ends thereof, wherein ~~the discontinuous aortic annulus stabilizing device is adapted to fix only a fibrous part of the aortic annulus, and wherein the discontinuous aortic annulus stabilizing device has an extra margin of about 2 mm outside of a vertical line which enables stabilization of the aortic annulus to be more easily accomplished.~~

Claims 17-21 (Cancelled)

Claim 22 (Currently Amended): The apparatus ~~offer restoring an aortic valve as set forth in claim 1~~, wherein the apparatus does not have a graft or flexible tubular structure connecting the ~~discontinuous aortic annulus stabilizing device~~ apparatus and the ~~continuous sinotubular junction stabilizing device~~ apparatus.

Claim 23 (Currently Amended): The treatment method for aortic valvular regurgitation as set forth in claim 13, wherein no graft or flexible tubular structure is used between the outer discontinuous band stabilizer ~~aortic annulus stabilizing device~~ and the outer continuous ring stabilizer ~~sinotubular junction stabilizing device~~.

Claims 24-25 (Cancelled)

Claim 26 (New): The apparatus of claim 1, wherein the inner discontinuous band stabilizer comprises a sewing passage wherein a material of the inner discontinuous band stabilizer is thinner than surrounding parts of the inner discontinuous band stabilizer, and wherein the inner

continuous ring stabilizer comprises a sewing passage wherein a material of the inner continuous ring stabilizer is thinner than surrounding parts of the inner continuous ring stabilizer.

Claim 27 (New): The apparatus of claim 1 wherein the inner discontinuous band stabilizer, the outer discontinuous band stabilizer, the inner continuous ring stabilizer and the outer continuous ring stabilizer each comprise a synthetic fiber.

Claim 28 (New): The method of claim 13 wherein the outer continuous ring stabilizer, the inner continuous ring stabilizer, the outer discontinuous band stabilizer, and the inner discontinuous band stabilizer each comprise a synthetic fiber.